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L13	L11 and (summary)	23	L13
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L4	L3 and (summary near data)	0	L4
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L10: Entry 3 of 3 File: USPT Mar 25, 1997

DOCUMENT-IDENTIFIER: US 5615408 A
TITLE: Apparatus and method for credit based management of telecommunication activity

Abstract Text (1):
The present invention provides an apparatus for credit based management of a telecommunication system. One embodiment of the apparatus includes an interface for communicating credit information on a particular subscriber and for receiving call records for the particular subscriber that are derived from a switch which establishes connections between telecommunication devices. A credit limit device then utilizes the credit information to establish a credit limit for the subscriber. The apparatus also includes a device for comparing the particular subscriber's call usage to a credit limit established for the subscriber based on information obtained from the credit bureau. An output device is used to provide an indication that the subscriber has exceeded their credit limit. Another embodiment of the apparatus, includes a device for, upon expiration of a predetermined time period, contacting the credit bureau to obtain a new credit score for a subscriber and use this score to update the subscriber's credit limit.

Brief Summary Text (3):
This invention relates to monitoring telecommunication systems, and more specifically, to an apparatus and method for detecting potentially fraudulent telecommunication system usage. Telecommunication systems include both wireless systems (e.g., cellular telephones, satellite transmission, etc.) and systems utilizing transmission lines (e.g., common telephone systems). Fraudulent telecommunication activity is unauthorized usage for which the telecommunication system owner is not paid for its services. The invention also relates to credit based management of telecommunication systems.

Brief Summary Text (5):
Because immediate access to information has become a necessity in virtually all fields of endeavor--including business, finance and science--telecommunication systems usage, particularly for wireless telecommunication systems, is increasing at a substantial rate. With the increase in overall usage, however, the incidence of fraudulent usage has experienced a corresponding increase. It is estimated, for example, that fraudulent wireless telecommunication system usage is responsible for losses to the wireless telecommunication industry of $600 million each year. Clearly, a system for detecting and preventing such fraudulent activity would be highly desirable.

Brief Summary Text (11):
Subscriber fraud, which may occur in either cellular telephone or common telephone systems, involves fraudulent usage by an otherwise legitimate subscriber. Typically, this type of fraud is experienced when a subscriber signs up for telecommunication services, either cellular or calling card, and proceeds to use the telecommunication services with no intent of ever paying for the services provided. A user practicing subscriber fraud would continue to use the services without paying until system access was blocked by the service provider.

Brief Summary Text (12):
Although a number of prior fraud detection and prevention systems have been suggested, all have proved inadequate for various reasons. One proposed solution involves setting a predetermined number as a system-wide threshold for the number of cellular calls that may be placed by an individual subscriber in one day; when the predetermined number is exceeded, the method indicates that fraud has occurred. The system-wide threshold method, however, has several drawbacks. For example, this method applies the same threshold to every user. Typically, a high-volume subscriber such as a stockbroker may regularly place a large volume of calls each

DOCUMENT-IDENTIFIER: US 6453029 B1
**** See image for Certificate of Correction ****
TITLE: Debit card system without centralized server

Abstract Text (1):
A system and method having a number of call processors and servers which provide prepaid or debit card calling service to local areas is disclosed. The servers are linked via a wide area network (WAN) or some other communications network. The system maintains a single account record for each debit card customer. Each account record contains information such as an account balance and a rate billing plan for the customer. When a customer makes a prepaid call, a local call processor and server handle the call. The local server obtains the customer's record from another server via the WAN if the record is not already present in a local database. WAN traffic is reduced because most debit card users routinely call from the same local area and, as a result, most of calls from a particular customer are processed by the same local call processor and server.

Brief Summary Text (4):
A debit card or prepaid calling system allows callers to charge telephone call costs against a prepaid amount that has been deposited by the callers. Prepaid calling systems can be used in both wireline and wireless telecommunications systems. Typically, users deposit a prepaid amount in an account that has been established with a debit card calling service provider. Debit card calls that are made through the service provider's system are charged against the user's prepaid account balance. Service providers can determine the cost for a particular debit card call in a number of ways. For example, users may be charged at a flat per-minute rate which essentially gives users a set number of calling minutes based upon the amount of money in the prepaid account. In a flat rate system, all calls to any telecommunications destination are billed at the same rate without regard to distance. Also, service providers can set a variable billing rate in which rates are based upon the distance of the calling destination.

Brief Summary Text (5):
The users' prepaid amounts are usually stored in a single centralized server or database. This central unit holds account information for every prepaid customer in the system. The user account records typically comprise such information as a current prepaid balance, an account number, a personal identification number (PIN) or password, and the user's billing rate plan.

Brief Summary Text (6):
Callers can access the debit card calling system in a variety of ways. In some systems users must first call a dedicated routing number. This number routes them to the centralized server which then prompts the callers to provide additional information such as an account number, PIN or destination telephone number. In other systems, users directly dial a destination telephone number and the call charges are billed to a prepaid account that is associated with the device from which the call originates, such as a particular business or residential telephone or a wireless device.

Brief Summary Text (8):
Another problem with prior art debit card calling systems is the call volume. Since all of the prepaid calls must go through the central server, or at least access the central server for the customer records, this creates a heavy demand on the central database. The high demand levels create the need for a very fast database server at the central location that can service all of the calls in the system.

Brief Summary Text (10):

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L16: Entry 9 of 23 File: USPT Feb 27, 2001

DOCUMENT-IDENTIFIER: US 6195422 B1
TITLE: Method for providing equal access dialing for pre-paid telecommunication services

Abstract Text (1):
To provide toll services but limit the amount of such services, toll calls from a party's line are routed to selected calling card type processing equipment. However, so that such calling party's have equal access to multiple carriers and need not dial additional digits, the communications network supplies calling and dialed number information to the processing equipment. The network preferably identifies the call as requiring a special application (without user input of billing number or PIN information). The processing equipment performs all necessary account related screening, e.g. to determine the remaining amount of funds available for the caller's toll services, to route the call and to continuously rate the call cost for the duration of the call. If there are no remaining funds, the call is disallowed. If the funds run-out during the call, the calling card type processing equipment interrupts the call and informs the caller. The invention may be implemented using switch-based PIC functionality to route the calls to the selected service provider's equipment. The preferred embodiment, however, utilizes intelligent network processing, to select one provider's equipment, route the call to that provider's equipment, and supply the necessary information to the equipment, in order to facilitate the account processing without further input from the caller. The caller need only dial a 1+ the 10-digit number to place a toll call, in the normal manner.

Brief Summary Text (9):
CCS--Calling Card System

Brief Summary Text (37):
Special exchange equipment, such as an intelligent platform, can provide an artificial or prerecorded voice announcement stating the amount of credit available and that the amount of credit is equivalent to a stated number of minutes of talking time on the call being connected. The announcement is made according to the charge rate for the distance between the calling and called parties.

Brief Summary Text (45):
After verification of the code number and credit, the calling party is connected to the regular telephone system and receives a regular dial tone. The calling party goes through the normal call process. Responsive to dialing, the user is given a call duration announcement indicating the length of call time that the credit amount will allow. The time charge rate of the call is continuously computed and subtracted from the credit amount. The call can be terminated either due to lack of credit or by the user. If the user terminates by dialing special code or by closing the hook switch when there is still more credit left, the user is then provided with a regular dial tone. If there is no credit left then the calling party phone is connected to the computer and receives the computer dial tone. If he or she does not dial in his or her code number after a predetermined time period, he or she is disconnected. Using an announcement, he or she can be notified to input a code or be disconnected. It should be understood that both announcements and visual indications may be used.

Brief Summary Text (51):
The concept of universal service is old in the telecommunications industry and is applicable to both interexchange (long distance) carriers and local exchange carriers. The regulatorily mandated goal is to provide basic telephone service on a universal basis, including to people of lesser means and people with a poor record of timely payment for services. Typically, these people received local calling services but could not make long distance calls. The regulatory agencies are pushing to extend Universal Service to include a limited amount of long distance

services. For the long distance calls, because of the time-based toll charges, there is a need to control usage to some set limit.

Brief Summary Text (58):
It is yet another object of the invention to provide an improved method for providing equal access dialing for prepaid telecommunication services using an existing Advanced Intelligence Network (AIN) in conjunction with an existing prepaid Calling Card System (CCS).

Brief Summary Text (60):
SUMMARY

Brief Summary Text (61):
These and other objects of the present invention are accomplished using a new method of purchasing telephony service via telephone connection implemented using existing telephone facilities. Pursuant to the new method, end users, rather than accumulate toll charges throughout a month, purchase credits for the amount of time or money they desire. Direct dialed calls may be routed to the telecommunications provider's prepaid calling card system (CCS). The calling card system may be owned or controlled by the telecommunications provider or any other party. It may be owned by the IXC or long distance provider or may be owned by the Local Exchange Carrier or LEC. On the other hand the owner/operator of the prepaid Calling Card System may constitute an independent entity.

Brief Summary Text (63):
AIN in the telephone network facilitates the routing to the calling card system and provides the original called number to that system along with the end user's account or charge or ANI (Automatic Number Identification) number. This enables end users to directly dial toll calls and have them routed to their Interexchange Carrier's prepaid calling card system, which will debit their account as the time/money is used. There is no requirement for the end user to call an access number and then enter the called number, debit card number, and/or PIN in the local exchange carrier network. According to a preferred method of the invention, AIN facilitates routing to the prepaid calling card system, and the supplying of the information necessary for the prepaid system to verify the end user and determine the original called number automatically.

Brief Summary Text (64):
End users may be allocated a specified amount of usage, as determined by a Universal Service mandate and/or by the carrier who would otherwise look to the end user for collection. As the end users make toll calls, an active database keeps-track of the time and charges on each call based on the called location (where distance sensitive rates apply), and will terminate a call or deny future call attempts when the limit has been reached. It has been discovered that the newly described functions of the database and associated system may be implemented by many existing third party operating company networks and existing prepaid calling card applications or services. This may be accomplished by operating pursuant to the new methodology of the invention.

Brief Summary Text (65):
According to one preferred embodiment of the invention, an Off Hook Delay (OHD) trigger may be established or `set` for the Universal Service line, or any other subscriber line which is to receive the new service. The Off Hook Delay trigger results in a query to the Service Control Point (SCP) or Integrated Service Control Point (ISCP). The SCP determines whether the call is local or an Interexchange call. If the call is local, the service control point instructs the Service Switching Point (SSP) functionality of the end office (EO) to route the call as normal. If the call is an inter-LATA call, the signal control point (SCP) routes the call to a prepaid calling card system of the type discussed. The prepaid calling card system (CCS) may be one selected at the end user's choice, i.e., the end user would pre-subscribe or be subscribed to a particular restricted call handling Interexchange provider. This choice would allow equal access for IXC and CCS pre-subscription.

Brief Summary Text (66):
In setting up this call, AIN has the capability to force additional information about the call to the prepaid calling card application in the Initial Address Message (IAM). For example, if the end user dialed an inter-LATA number, the original dialed number could also be provided to the end user's IXC's prepaid calling card system, when AIN routes the call to that system. By

sending the original dialed number and the customer's charge number, the prepaid calling card system would not need to interact with the caller to obtain calling number information, card number, or PIN.

Detailed Description Text (2):
The conventional prepaid calling card system normally operates by having customers call into an access code that directs the call to the prepaid calling card Interactive Voice Response (IVR) system. The caller is then prompted to enter the number they desire to call along with their calling card number and PIN. The method of the present invention eliminates the need for this identification procedure and provides automatic identification. The diagrams shown in FIGS. 1 and 2 provide high level depictions of the new service.

Detailed Description Text (3):
Referring to FIG. 1, A, B, and C respectively represent inter-LATA, intra-LATA, and local calls. Each of the inter-LATA and intra-LATA calls A and B are directed to a customer selected toll restricting prepaid calling card system (CCS), such as the systems shown as intra and inter-LATA toll credit systems in FIGS. 1 and 2. Routing for inter-LATA and intra-LATA calls beyond this point occurs under direction and control of the pre-existing calling card system. That system uses the Interexchange carrier network and the intra-LATA Local Exchange Carrier (LEC) short distance network to direct the calls to the respective called parties.

Detailed Description Text (4):
The local call C is not directed to the calling card system but rather is defaulted to the usual local PSTN (Public Switched Telephone Network). Here it is handled in the normal manner of a local call. FIG. 2 provides a different high level depiction of the same operation. AIN Toll Guard Re-Routing Service represents a service which provides a capability to limit the amount of telephone usage incurred on a particular end user's account (specifically, usage based toll charges). The remainder of FIG. 2 depicts the local, C, intra-LATA, B, and inter-LATA, A, call flows, just described and as presently to be described in further detail.

Detailed Description Text (6):
The Local Exchange Carrier (LEC) has Advanced Intelligent Network (AIN) capability, and the LEC's network 10 includes or connects to an Integrated Service Control Point (ISCP). The SCP, one element of the integrated ISCP system, is a service control point (SCP) database provided with the call sorting functionality described. The ISCP 16 connects through conventional data links and a Signal Transfer Point (STP, not shown) to the End Office (EO) 12. The End Office 12 is also connectable to a prepaid Calling Card System (CCS) 18 via voice and signaling links. The prepaid Calling Card System is in turn connected to a Public Switched Telecommunication Network (PSTN) 20, which may constitute an Interexchange Carrier network such as that of AT&T or MCI. While only one prepaid Calling Card System is shown, multiple such systems may exist as shown in FIGS. 1 and 2. Those Figures show both inter-LATA and intra-LATA prepaid Calling Card Systems.

Detailed Description Text (7):
The processing for the restricted toll call service of the present invention involves two routines or applications. One application takes the form of profile data and/or service logic in the LEC network 10. As discussed more later, this logic may reside in the end office switch 12, but preferably the controlling portion of this logic runs in a network control node, such as a service control point within the ISCP 16. The other application for the service runs in a selected calling card system.

Detailed Description Text (8):
The calling card system may run several applications, such as the restricted toll service application, a pre-apid calling card service application, and a credit card calling service application. Of particular note, the application in the LEC network 10 supplies certain necessary information to the calling card system 18, to enable the restricted toll service application in the system 18 to process the call as a pre-paid type call without the requirement for caller input of any special data.

Detailed Description Text (9):
In addition to prepaid Calling Card Systems for handling different types of calls, such as inter-LATA and intra-LATA, there may be a choice between competitive systems in either category. As previously pointed out, the calling card system may be owned or controlled by the

telecommunications provider or any other party. Frequently it will be owned by the IXC or long distance provider such as AT&T or MCI, by way of example. On the other hand the prepaid Calling Card System operator may constitute an independent entity. The Calling Card System shown in FIG. 3 is an inter-LATA Calling Card System and most likely owned by an Interexchange Carrier (IXC). The Calling Card System appears as simply another switch to the originating switch in the End Office 12.

Detailed Description Text (10):
The subscriber to the toll restricted line 13 to terminal 14, or any subscriber, is free to choose his or her calling card system. By way of example, that calling card system may be the AT&T or the MCI calling card system. The identity of that calling card system is built into the AIN database record associated with that line in the same manner as long distance PICs (Preferred Interexchange Carriers) are identified with the line for regular long distance toll services.

Detailed Description Text (23):
However, if the call is a long distance inter-LATA toll charge or intra-LATA call, it is handled pursuant to the logic for long distance calls. Thus the call is determined to be long distance, and the customer's profile or service logic in the CPR retrieved from the service control point database controls call routing. This provides information as to the identity of the long distance or inter-LATA Interexchange Carrier, and the calling card service provider for the calling line. As previously stated, the calling card system and the inter LATA Interexchange Carrier (IXC) network may be commonly owned or operated. The service control point in ISCP 16 retrieves from its database a routing number for the prepaid calling card system identified in the service logic of the calling party. This is the prepaid calling card system with which the calling party is registered. With the routing number it is possible to route to that system.

Detailed Description Text (24):
The calling card system may be an existing system that is in place for existing cash or prepaid calling cards, such as the Seven-Eleven calling cards now in use or other existing calling card systems. The routing number may have an 800 number to access. In that situation one option would be simply to route the call using that 800 number. If that alone was done, the caller would receive from the calling card system some type of prompt for a PIN or authorization code. If the codes provided by the caller are validated, the caller must redial the original dialed number. This routine fails to provide the customer with the same ease of access as is provided to non-toll limited access customers.

Detailed Description Text (25):
In order to correct this deficiency, one preferred embodiment of the invention provides that the call set-up SS7 signaling which is used to route to the chosen prepaid calling card system, have one of several available parameter fields populated with the original dialed number. Stated differently, the parameter is set equal to the original dialed number, which is available. The CPR provides a routing number for accessing the PIC of the calling subscriber, for toll service. This could be the 800 number or any number that is used to route the call to the preferred prepaid calling card system chosen by the subscriber. When the 800 number is used it becomes the local routing number. It is used by the network to route the call to the right switch, which in this case is a prepaid call card system.

Detailed Description Text (26):
More specifically, the ISCP 16 formulates a TCAP call control type response message containing instructions for routing the call. This TCAP response message includes a calling party number field, a routing number field and several other fields, one of which is used to carry the dialed number. In accord with the invention, the routing number field now contains the 800 number or other number needed to access the toll restriction application on the selected CCS system 18. If the calling card system provides other services, such as normal calling card services, then there is more than one number associated with the CCS system 18. The CPR provides the number associated with the inventive toll restricted service as the routing number, rather than a general number for the system 18 or a number specifically associated with one of the other services available from the system 18.

Detailed Description Text (29):
The end office 12 generates an Initial Address Message (IAM) for transmission to the CCS

sysstem 18. The IAM message contains the routing number for the restricted toll call service in the destination number field, and contains the caller's normal telephone number or billing number in the calling party number field. As instructed by the ISCP 16, the end office 12 places the actual dialed digits from the GAP field of the response message in an appropriate field of the IAM message. This number may go in the "redirection number" field or the "original called number field," but preferably, the system uses the GAP field of the IAM message to carry the dialed number. The end office 12 transmits the IAM message over data links and through one or more STPs of the signaling network to the CCS system 18. In response to the IAM message, the CCS system sends back standard signaling messages, to enable the end office 12 to complete the call through the network to the CCS system 18.

Detailed Description Text (30):
The GAP parameter therefore tells the calling card system (CCS) 18 what number the caller originally dialed. The caller did not originally dial the 800 number, but dialed the number of the party being called. When the 800 number call is normally made it sends a charge or billing number of the originating station. The calling card system will get, because of the 800 call, the charge number of the person that called and the number originally dialed. That can be used to verify what account to debit to the calling card system. AIN can also force that to happen when the 800 number is not the routing number that is used. In that case AIN forces the charge number to be sent on the SS7 call set up message to the calling card system switch.

Detailed Description Text (32):
While the end user is a subscriber of the Local Exchange Carrier which operates the LEC network that makes the connection to the calling card system, it is the calling card system that totals the toll charges and looks to the subscriber for payment for its services. The local exchange carrier looks to the calling card company and/or the Interexchange Carrier or IXC and/or the end user for payment. The obligation of the end user to the local exchange carrier is usually satisfied by payment of its monthly charge for local service, which may include a charge for the toll limitation service.

Detailed Description Text (39):
The query message includes the calling party telephone number and the dialed digits of the destination number. With this information the service control point determines that the user has dialed a long distance call. Using the service logic of the CPR, the control point determines that the caller has selected a specific calling card system, and the identity of the calling card system. The CPR also identifies the Preferred or primary Interexchange Carrier (PIC) chosen by the caller. In this example the Interexchange Carrier chosen by the caller is assumed to own or operate the chosen calling card system. This is shown at S7.

Detailed Description Text (40):
At step S8 the service control point also ascertains from the CPR or service logic the number (routing number) which it takes to route that call to the calling card system, which was identified in S7. This could be an 800 number or any actual telephone number.

Detailed Description Text (41):
At S9 the service control point sends back through the signal transfer point or STP a response message to the switch in the end office. The response tells the switch to route to that number for the calling card company. The response message includes the original dialed digits in the GAP field and serves as an instruction to the end office 12 to populate the GAP field in further signaling with the original dialed digits. The originating switch, insofar as it is concerned, thinks it is just routing the call to or through another switch using the CCS access number from the response message. The call may need to go through a switch, and that switch may turn it into ISDN (Integrated Services Digital Network); or the calling card system equipment may look like and have the capabilities of an end office switch itself.

Detailed Description Text (42):
The end office 12 now resumes is processing and routing of the call. As an initial step in that routing, the originating end office switch 12 now commences SS7 call set-up signaling. It begins sending ISUP (Integral Services Digital Network (ISDN) User Part) signaling to the calling card system equipment. The originating switch 12 sends an IAM (Initial Address Message) query message through one or more STPs of the interoffice signaling network to the switch at the calling card company or system. The IAM will include in a called number field the number which the service control point provided, which identifies the CCS and effectively identifies

the restricted call application on that CCS. The message will also include a calling number field, which is really an end user identification for an account. It might be the actual number of the caller or it may be the billing number. The IAM will also include the GAP parameter, and as discussed above this field now contains the actual number that the user dialed. This is shown at S10.

Detailed Description Text (43):
At step S11 the calling card system switch responds affirmatively to the ISUP signaling, and at step S12 the call is set up from the originating switch 12 all the way to the calling card system 18. In the view of the originating switch, the call is now a completed call, and the originating switch has finished.

Detailed Description Text (44):
The calling card system 18 preferably runs an application corresponding to the routing number that it received in the IAM message. In this case, the application corresponds to the restricted toll call service, rather than to some prior service such as a pre-paid calling card service. At S13 the calling card system equipment has the call, it has the billing number, it has the digits which were originally dialed, and it knows that the caller has a poor long distance toll payment record and is subject to the restricted toll call application. As a consequence, the calling card system retrieves from its database the records of the account, and determines the toll balance.

Detailed Description Text (45):
At S14 the calling card system 18 makes a decision as to whether it will accept or reject the call. For example, the CCS system may decide to accept or reject the call based on whether or not the toll balance exceeds a threshold, such as the amount for completion of three minutes of a call to the dialed destination.

Detailed Description Text (48):
At this point the RATER in the calling card system 18 commences timing, monitoring and rating for the call. If, during the continuance of the call, the accrued charge for continuing the call equals or exceeds the remaining credit to the caller, the call will be terminated and a message sent advising the user of that fact. If the call is completed, it is rated and billing data is accumulated, recorded, and billed. This is a bill from the calling card system proprietor, which, in this case is an Interexchange Carrier which owns the calling card system. Typically, the system 18 deducts this latest billed amount from the subscriber's account balance. This occurs at S17.

Detailed Description Text (49):
In addition to this billing, the Local Exchange Carrier or LEC may create unique billing records for this new type of toll restricted call service. This occurs at S18. The logic that directed that the LEC initiate the service by sending the call to the calling card system, may also direct that the originating end office switch 12 generate these new type of billing records.

Detailed Description Text (50):
The existing Local Exchange Carrier debit and billing system obtains a record for every call and this may be sent to the calling card system. It is possible in the Local Exchange Carrier network to identify the calling card system and the duration of the call. This is accomplished through the LEC network AMA (Automatic Message Accounting) SLIP ID (Service Logic Profile Identifier). The SLIP ID identifies the calling card system and call duration. Thus data is created that records that the call went to a specified calling card system and lasted a specified period of time. These records may be used to generate a bill in the normal fashion from the LEC to the proprietor of the calling card company, which may constitute an Interexchange Carrier or IXC. This is for the service to the calling card system, including the provision of access. The billing may be directed to any consenting entity indicated by contractual arrangements between the Local Exchange Carrier and the end user, and between the Local Exchange Carrier and the calling card system proprietor, and between the Local Exchange Carrier and Interexchange Carrier. This may be any entity which the calling card system or its proprietor designates. In the case of a restricted toll call system, the designated entity may be a welfare department or the state. If the designee is an Interexchange Carrier the charge may be included in the charge for access.

Detailed Description Text (51):
In the foregoing example the method and operation of this embodiment of the invention is described in terms of a long distance or inter-LATA call. The operation is the same for an intra-LATA call. In this case a different calling card system would normally serve the function of the calling card system, although the functionality of the two systems could be combined in one system. As in the long distance example the user would have one or more PIC options and could name the preferred calling card system and the preferred local exchange carrier.

Detailed Description Text (53):
In addition to the above described preferred embodiment of the invention, the invention also comprehends less preferred embodiments that lack certain of the advantages provided in the most preferred embodiment. Thus it is possible to carry out a call restriction process by PIC-ing to the calling card system, using the switching functionality of the offices of the LEC network 10. That is, instead of PIC-ing to the POP (Point of Presence) of an Interexchange Carrier as for normal LEC/IXC subscribers, the restricted call customer is PIC-ed to a pre-paid calling card system, which appears to be the POP of the calling card system which provides prepaid toll calling card service. This may be accomplished using the PIC functionality in the switch and the conventional PIC-ing process. The called and calling numbers are now sent to the calling card system pursuant to normal Common Channel Interoffice Signaling procedures for toll calls. It is unnecessary to utilize the GAP parameter to pass along the digits of the dialed or called number.

Detailed Description Text (54):
While this embodiment of the invention possesses the advantage of simplicity, it sacrifices the flexibility which is found in the most preferred embodiment illustrated in the flow diagram shown in FIG. 4. For example, this embodiment cannot provide two, three, and four PIC. Also, the calling card system must use the calling party number to recognize that the caller has restricted toll service, to bypass any prompt and identification procedure used for normal calling card services.

Detailed Description Text (55):
Another embodiment may use an originating trigger so that when the financially impaired user goes off-hook he or she is immediately identified by AIN signaling as a toll restricted caller making a toll call by virtue of subsidization by some type of welfare system that allows the call. The end office switch is sent the translation code of the calling card system or company and the caller is immediately sent to that destination.

CLAIMS:

11. A method as in claim 10, wherein:

said one selected calling card type system receives calls using a different routing number for a different billing service;

said one selected calling card type system selectively executes an application for the restricted value telephone toll service in response to the toll call routed using the routing number; and

said one selected calling card type system selectively executes a different billing application in response to any call routed using the different routing number.

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